

First-Year Chemistry Graduate Students Course Planning Handout

2026–2027 Academic Year

Individual Advising Appointments: August 2026

ChAMP and Materials Chemistry Area Advisor: [Prof. Joe Patterson](#)

Chemical Biology Area Advisor: [Prof. Jennifer Prescher](#)

Inorganic Area Advisor: [Prof. Andrew Borovik](#)

Organic Area Advisor: [Prof. Suzanne Blum](#)

Physical, Theoretical, Nuclear, Analytical & Atmospheric Area Advisor: [Prof. Eric Potma](#)

Course Requirements of the Ph.D. Program

1. Complete 7 four-unit lecture courses that support your area of research (with approval from area advisor).
2. Complete Chem 200: Conduct of Research (does not count toward 7 required courses).
3. Enroll in 16 units per quarter.
4. Earn “B” or better in all courses.
 - a. Anything below “B” or Unsatisfactory is not passing.
 - b. One “B-” can be petitioned to count towards your degree.
5. Maintain a GPA above 3.1 to qualify for TA positions.
6. Serve (at least) 4 quarters as a teaching assistant or (at least) 3 quarters for ChAMP students.

Research Requirements of the Ph.D. Program

1. Attend faculty research talks during orientation.
2. Complete 3 three-week research lab rotations during Fall 2026.
 - a. Expected to match with a research lab by the end of Fall 2026.
 - b. The absolute matching deadline is the end of Winter 2027.
3. Complete an annual IDP and discuss it with your research advisor.
4. Satisfactorily complete second-year examination.
5. Satisfactorily complete advancement to candidacy examination (“orals”) by end of sixth quarter.
6. Satisfactorily complete an original research proposal
7. Satisfactorily complete and defend a doctoral thesis by end of fifth year.

Other responsibilities for Chemistry graduate students:

1. Attend weekly research seminars. It is recommended to attend seminars in complementary fields.
 - a. Organic Seminar (Wednesdays at 4:00 PM)
 - b. Physical Seminar (Tuesdays at 3:30 PM)
 - c. Inorganic Seminar (Thursdays at 3:30 PM)
2. Attend Departmental Colloquia, special lectureships (i.e., Taft Lecture, Lee Lecture, etc.), special symposia, and special seminars as appropriate.

Course Selection Tools

- A list of Chemistry graduate courses offered in 2026–2027 is available on the Pre-Advising Course Schedule and at [Chemistry Graduate webpage](#)
- For a complete list of all courses offered by Chemistry, visit the current [UCI General Catalogue](#)
- The UCI Web Schedule of Classes ([WebSOC](#)) allows you to current course schedules
- Course registration must go through the campus Registrar via [WebReg](#)

Full-time Course Registration

Fall 2026*

- 3 main (4-unit) lecture courses (12 units)
- Chem 200: Conduct of Research (2 units)
- Chem 290: Seminar (1 unit — mandatory)**
 - Organic/Chem Bio: 41790 with Griffin
 - Physical: 41791 with Sheldon
 - Inorganic: 41792 with Arguilla/Handford
- Chem 291: Research Seminar (4 units; *with your area advisor*)**

Winter 2027*

- 3 main (4-unit) lecture courses (12 units)
- Chem 280: Graduate Research (1–6 units; *with your research advisor*)
- Chem 290: Seminar (1 unit—mandatory)**
- Chem 291: Research Seminar (4 units; *with your research advisor; this is group meeting*)**

Spring 2027

- 1 main (4-unit) lecture course (4 units)
- Chem 200: Conduct of Research (2 units)
- Chem 280: Graduate Research (1–6 units; *with your research advisor*)
- Chem 290: Seminar (1 unit—mandatory)**
- Chem 291: Research Seminar (4 units; *with your research advisor; this is group meeting*)**

Fall 2027 and beyond

- Chem 280: Graduate Research (11 units; *with your research advisor*)
- Chem 290: Seminar (1 unit)**
- Chem 291: Research Seminar (4 units; *with your research advisor*)**

Notes about selecting courses

- There can be some variation in the number of 4-unit lecture courses you take each quarter, but the ideal scenario (3 in Fall, 3 in Winter, 1 in Spring) allows you to maximize your research output in the Spring and helps you ramp up productivity going into Summer.

- Any differences from the 3/3/1 will affect your total units; your area advisor can help you navigate what to do, including using the sliding scale for research units in Winter and Spring.
- In addition to the graduate-level Chemistry courses, students working in interdisciplinary areas may choose to take approved graduate courses in other departments such as Molecular Biology and Biochemistry, Pharmaceutical Sciences, Physics, Earth Systems Science, Chemical and Biomolecular Engineering, Materials Science and Engineering, etc.
- In special cases, an upper-division undergraduate chemistry course may be used as one of the seven required lecture courses.
- Please complete the Pre-Advising Course Schedule prior to the virtual advising appointment for approval by your area advisor.
- You might have trouble choosing between two different course options. In that case, you may enroll in both, attend them in first 2 weeks, and make a final decision/drop by the deadline (end of week 2). If you like both and can handle the extra course, then you can remain in both.

* If you want to enroll in more than 16 units in a quarter, contact [Bailey Spelman](mailto:bspelman@uci.edu) <bspelman@uci.edu> in Chemistry Student Affairs to ask for an exception. These requests are easily approved, and having more than 16 units is quite common, especially in the Fall or Winter quarters of your first year.

** Chem 291 (research seminar) during the Fall quarter of the first year is graded based on documented participation throughout rotations. Chem 290 (seminar) and Chem 291 may be failed if requirements are not met, which can result in negative academic consequences.

Satisfactory Academic Progress

"Adequate progress towards the dissertation/thesis is expected of each PhD/MFA student throughout the calendar year. This progress includes the regular academic terms (fall/winter/spring), times between instructional dates in these terms, and during the summer, at a pace that is likely to result in completion of the degree program within its normative time. The amount of effort required will vary depending on the ability and efficiency of each student. Oversight mechanisms for academic progress reside principally with the faculty, as well as (to a lesser extent) with academic administration. Departmental graduate advisors and individual faculty advisors are experienced in judging the pace of progress in research and/or creative activities necessary to meet the expectations of academic achievement within normative time.

...

For PhD and MFA students in many fields, the summer period is an essential time to make academic progress. The scholarly contributions that make up a dissertation/thesis may arise in part from a GSR appointment, but academic progress does not and should not emerge mainly from this paid employment. In fields in which students employed as GSRs perform tasks that overlap with and provide results or insights that will appear in the student's doctoral dissertation

or MFA thesis, the additional effort required to advance the dissertation/thesis is usually considerably more than the time a student spends performing GSR duties."

From *Report on the Future of Doctoral Programs at the University of California* (2025).

First-Year Graduate Student Rotations in Chemistry

As beginning graduate students, you are expected to get to know many of the different research groups, advisors, and projects in the Department. Rotations in different laboratories are an important part of the process. You are required to complete 3 three-week rotations in different research groups during the Fall 2026 quarter. Rotation expectations and the tentative schedule are available on the [First-Year Rotations webpage](#).

During Orientation, Chemistry faculty will be giving short (10–15 min) presentations on their research. Your attendance at these presentations is expected.

Near the end of orientation, you will receive an email asking you to fill out a web-based form naming your top five choices for lab rotations. *We will make every effort to assign your three rotations from these five choices, but it is not guaranteed.*

Research groups will establish their own rotation procedures, which will generally include:

- Meeting with the PI to discuss research opportunities in the group.
 - Suggestions: review faculty's webpage, read some papers, talk to current students, create some questions you might ask the PI.
- You will likely be assigned a desk in the laboratory.
 - Suggestions: complete your coursework there to get familiar with the culture, spend time in the lab and talk to current students about their projects and group dynamic.
- Attend the weekly research group meetings and any subgroup meetings as appropriate.
- Be sure to ask each PI what their expectations are for a rotation student as there will be variations from one faculty member to the next.

Rotations are meant to facilitate your introduction to a few groups in the Chemistry Department and to get you started on a path to choosing a research group. *You are strongly encouraged—and expected—to go beyond your three rotations to learn about the research groups and opportunities in the Department.*

At the end of the rotations, you will be asked to provide a list of your top choices of research advisors/groups. The group joining process will be explained in more detail later. *Importantly, you are able to choose a group in which you did not rotate; however, for that to have a good chance of working out, you will need to ensure that you've spent time with that group and interacted with the PI.*

Typical Doctoral Study Timeline

Year 1

Fall 2026

Coursework (ideally 3 four-unit courses), teaching assistant (approx. 20 hours/week), and rotations. The first quarter of graduate school brings new opportunities and new challenges, but it is also the quarter that most resembles your career as an undergraduate. At the end of the quarter, student/research advisor matching will occur.

Winter 2027

Coursework (ideally 3 four-unit courses), teaching assistant (approx. 20 hours/week), rotations and a NEW LAB! The start of winter quarter will be more of the same but you should be a member of a research group. Get acclimated to the lab: learn where equipment is located and how it is operated, get trained on instruments, learn about the science occurring in your lab, take on group jobs, perform experiments, etc.

Spring 2027

Coursework (1 or more four-unit courses), teaching assistant (approx. 20 hours/week) and research. Increase research productivity. Define your project and background to prepare for academic research in the summer months.

Summer 2027

Research, research, research! It's time to focus on research so you are prepared for...

Year 2 (Pre-Candidacy)

Fall 2027–Winter 2028

Research-focus! First-year exams/reports will happen between late Summer 2027 and Fall 2027. The form of the exam varies slightly depending on your area. Overall objective: demonstrate that you are on a path to becoming an effective scientist and researcher. More details to follow.

Spring 2028

More research and Advancement to Candidacy Exams. Overall objective: prove to a faculty committee that you can complete a PhD in chemistry. The Candidacy Exam (i.e., "Orals") is a comprehensive exam in chemistry. More details to follow.

Years 3-5 (Post-Candidacy)

Research! At this point, you should be able to perform research independently, co-author papers, take your projects in new directions, and participate in/take lead on extra-curricular tasks within the Department or beyond. Attend relevant conferences and prepare for your job or postdoc search. Write and defend your dissertation, graduate, and then conquer the world (but in a good way)!